



EUROJÄRJESTELMÄ
EUROSYSTEMET

From financial stability analysis into macroprudential policy in Finland

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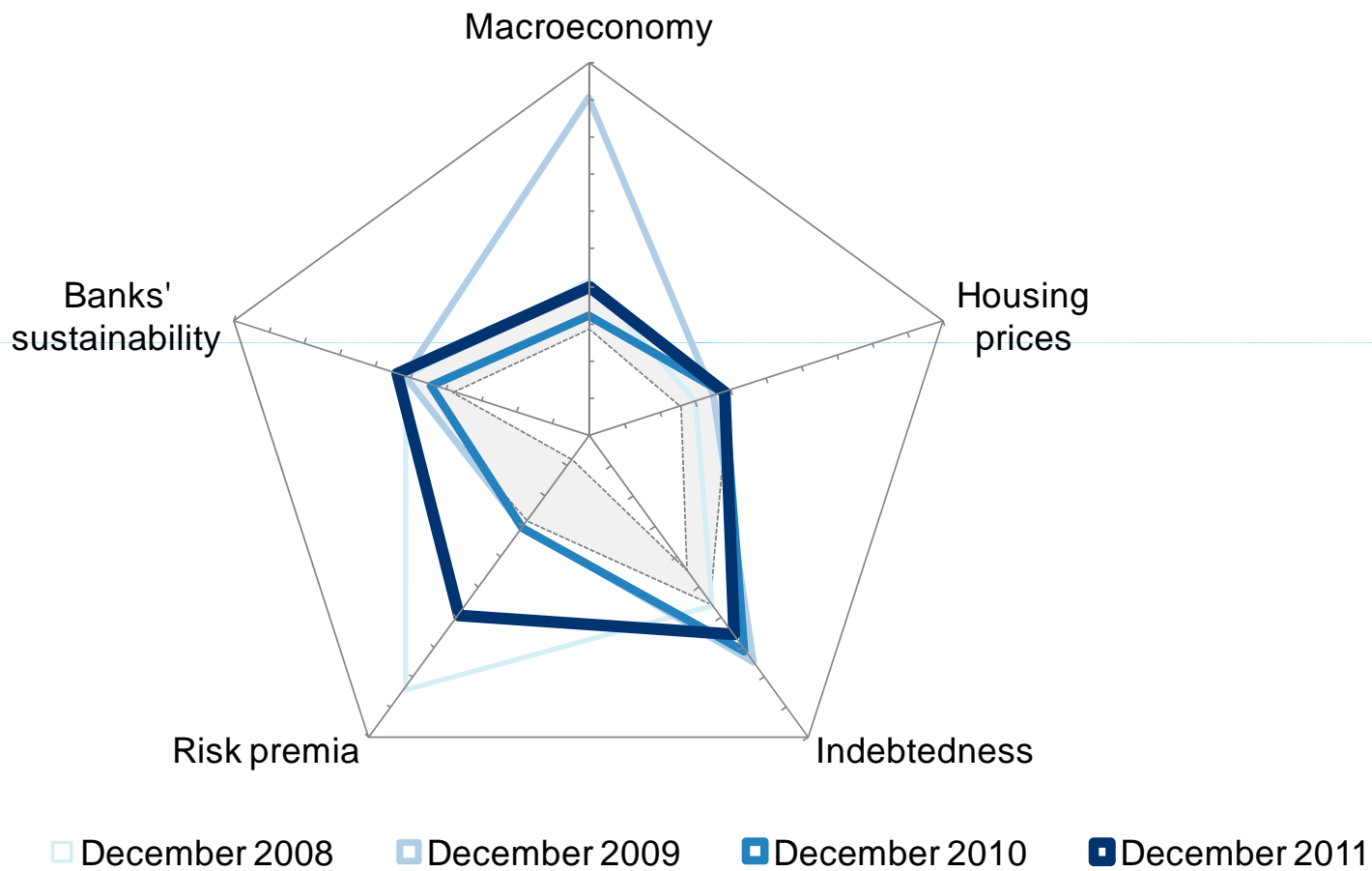
Historical background

- ◆ A tightly regulated financial industry since the 1930s
- ◆ Deregulation in the mid 1980s
- ◆ Boom in the late 1980s, bust in the early 1990s
 - One of the worst banking crises in history
- ◆ Nordic/Scandinavian integration since the 1990s
- ◆ EMU membership since 1999
 - Only Nordic country in the Euro Area
- ◆ Crisis in recent years has had a limited impact on banks
 - Impact on the GDP much stronger

The Finnish financial system today

- ◆ Rather bank centred
 - Corporate bonds, life insurance etc of limited importance
 - Exception: statutory employee pension institutions
- ◆ A concentrated banking market
 - Three largest banking groups account for 85 % of deposits and 86 % of balance sheet total (Dec 2011)
- ◆ Cross-border (Scandinavian) banking groups major players
 - Host country issues topical in Finland
 - Major commercial banks incorporated in Finland, but owned by foreign parent banks
- ◆ Finland as one "gate" to the euro area for Scandinavian banking groups

Financial Stability Map



Sources: Merrill Lynch, NASDAQ OMX Helsinki, banks, Statistics Finland and Bank of Finland.

Indicators - for surveillance

◆ EU-level

- Interlinkages
- Macroeconomy
- Funding and liquidity
- Market risks
- Profitability and solvency

◆ Domestic

- Macroeconomy-credit growth-current account
- Borrower sectors
- Banks- distance to default- liquidity creation
- Bubble indicators (Taipalus: BoF DP 7/2012)- ADF testing in a rolling window

The stress testing framework at the BoF

- ◆ Purely domestic or EBA coordinated
- ◆ Creating a macroeconomic scenario
 - Aino DSGE model
 - Satellite models to derive slope of the yield curve, interest rates for weakly rated securities and asset prices
- ◆ A balance sheet model to calculate net interest income
 - Originally developed for forecasting the banking sector
- ◆ Cooperation between the BoF and the FSA
- ◆ P&L account, capital adequacy at the institution level
- ◆ Banks and insurance companies asked to provide their own calculations

Loan losses in stress testing

- ◆ Different models have been used, even in parallel
- ◆ **Sorge-Virolainen model** (Journal of Financial Stability 2, 2006, 113–151)
 - Estimated with Finnish company level data
 - Calculates loan loss distributions for different industries;
 - function of macroeconomic variables and random variation
- ◆ **Pesola model** (BoF Disc paper 15/2007)
 - Estimated with a cross-national sample of macro level data
 - Aggregate loan losses as a function of the indebtedness ratio, interest rate shocks, GDP shocks

Macroprudential instruments

- ◆ Market failures => need for policy action
- ◆ Intermediate targets- structural/cyclical instruments
- ◆ Legal issues, national constitution
 - May not be possible to give excessive freedom of discretion to any authority
 - Preferably precise instruments in law
- ◆ EU level initiatives
 - Single EU Rulebook with limited national flexibility

Basel III

- ◆ Capital Requirements Directive (CRD) IV and Capital Requirement Regulation (CRR)
- ◆ Proposal: national authorities could use three different macroprudential tools
 1. Higher risk weights for collateralised loans
 2. Countercyclical capital buffer
 3. Extended pillar 2 (Bank specific, e.g. additional capital requirement)
 - These instruments may be relatively weak (Putkuri & Vauhkonen 2012, BoF Online 4/2012)

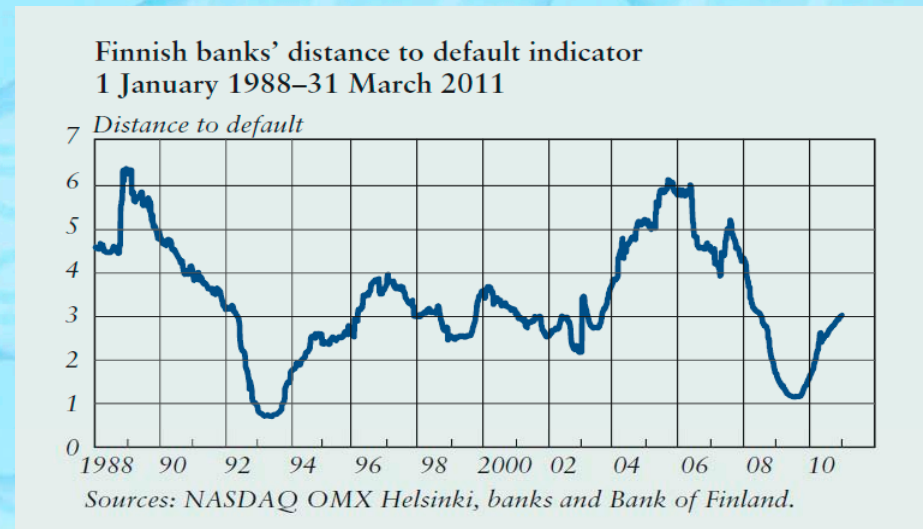
Macroprudential instruments

- ◆ EU CRD IV: Countercyclical capital buffer set if credit/GDP above its trend value
 - Indicator may not suit Finland, highly cyclical economy
 - GDP collapses => the indicator signals excessive credit growth
 - Ongoing work on developing the indicator further
 - Differencing instead of trend deviations?
 - Moving average of nominal GDP
- ◆ Loan-to-value regulation
 - Recommendations by the Fin-FSA

BoF Financial Stability Report

- ◆ The Bank of Finland was one of the first central banks to publicly comment on financial stability
 - Articles in the Bank of Finland Bulletin since 1997
- ◆ Financial stability reports published since 2003
 - Special issue of "Bank of Finland Bulletin"
 - International environment, domestic environment, banking and insurance, infrastructure
- ◆ Various indicators and figures updated regularly

But, who reads reports?



Work in progress

- ◆ More scenario-based analysis with short – medium - longer term developments and risks...but,
- ◆ still struggle with the probabilities of risks to materialise and their weight ... i.e. "fat tails"
- ◆ Interlinkages and liquidity stress testing
- ◆ Max co-operation between the BoF and Fin-FSA and the new European Supervisory Structure
- ◆ From analysis into policy – matrix of what-why-whom? – to communicate louder but wiser



Thank you!



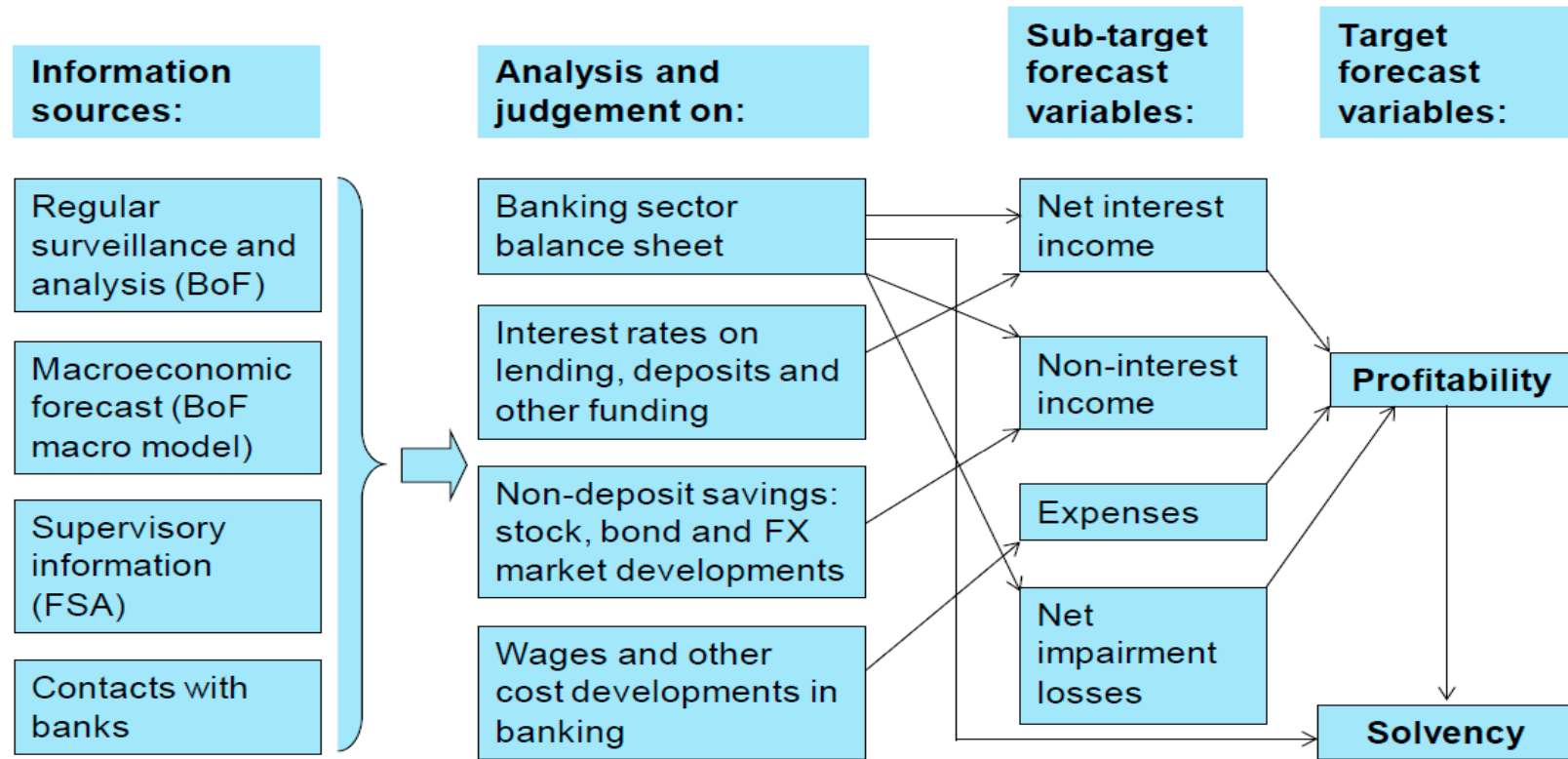
Additional charts

BoF-PSS2 - unique analysis tool

- ◆ Payment system simulator – a tool for oversight
- ◆ Supports all or most common "building blocks" of payment systems
 - RTGS, designated time net settlement, continuous net settlement
 - Multicurrency, Multisystem, Securities settlement systems
 - Different combinations of queue releasing and liquidity saving algorithms
 - Possibility to implement user made algorithms
- ◆ Related services
 - Trainings 2-4, consultation, partnerships
 - Help Desk and Extranet to communicate

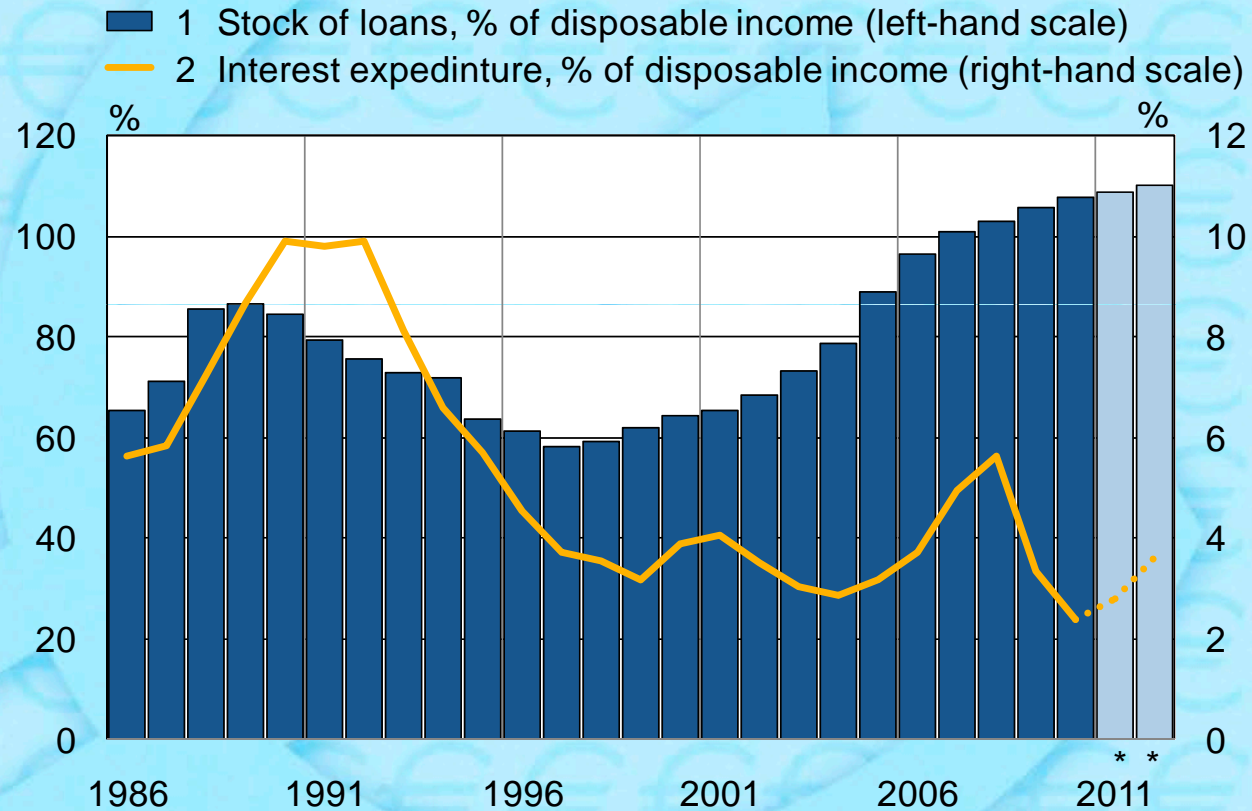
The BoF banking sector model

Chart by H Putkuri (BoF Online 9/2009)



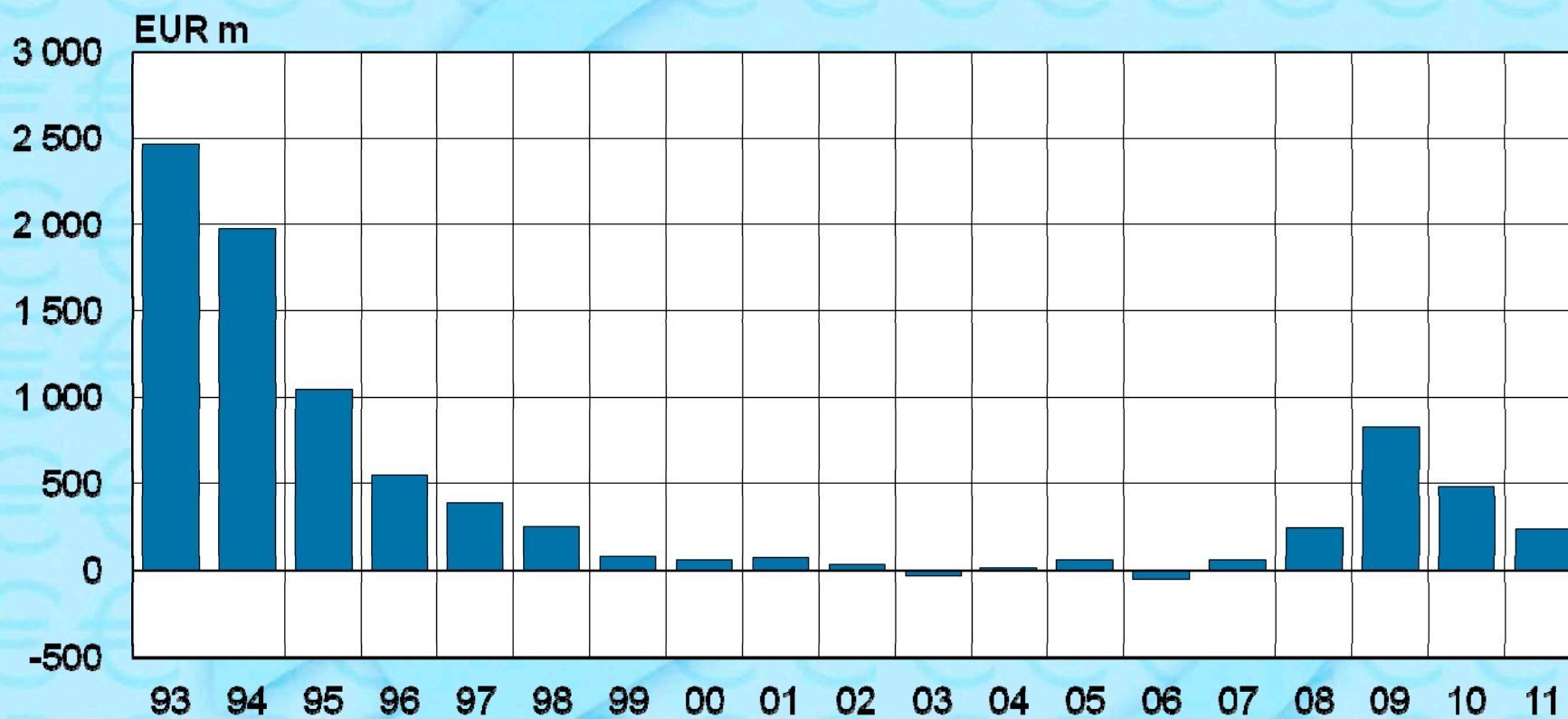
- A relatively similar process used in both baseline banking forecasting and stress testing

Household indebtedness still growing, interest expenditure expected to remain moderate



*Bank of Finland forecast for 2011-2012.
 Sources: Statistics Finland and Bank of Finland.

Finnish deposit banks' loan and guarantees losses



Source: Financial Supervisory Authority (FIN-FSA).



Session II

Incorporating Macroprudential Instruments into Monetary Policy

The new EU Financial Stability Framework

- ◆ The EU has been engaged in a comprehensive programme of financial reform, inline with global commitments adopted by G20
- ◆ The aim is to have all the reforms in place by 2013
- ◆ The first birthday of the new European supervisory structure :
 - microprudential supervision through the three European Supervisory Authorities and
 - Macroprudential oversight through the European Systemic Risk Board (ESRB)

The institutional setup for macroprudential surveillance- European level

- ◆ Report by the de Larosière group in 2009
- ◆ ESRB = European Systemic Risk Board
 - Est. Dec 2010, independent EU body, secretariat at the ECB
 - Prevention and mitigation of systemic risks
- ◆ Can only issue non-binding risk warnings and recommendations (act or explain)
- ◆ Unfortunate starting time: short term vs. longer term horizon in the middle of the crisis

The European Systemic Risk Board

- ◆ So far, the ESRB has adopted three public recommendations regarding:
 - ◆ lending in foreign currencies
 - ◆ US dollar-denominated funding of credit institutions
 - ◆ Macroprudential mandate of national authorities
 - a set of guiding principles for the creation of macro-prudential authorities in the Member States

New financial supervisory architecture in Europe

European Systemic Risk Board (ESRB)

Members with voting rights:

- Members of the ECB General Council
- Chairpersons of the European Supervisory Authorities
- Member of the European Commission

Members without voting rights:

- High-level national supervisors (1 / country)
- The President of the Economic and Financial Committee

Supervisory information



Risk warnings and recommendations



European System of Financial Supervision (ESFS)

